

Downloadable applications

Google Desktop. Google Desktop lets people perform a full-text search on the contents of their own computer, including email, files, instant messenger chats and web browser history. Users can view web pages they have visited even when they are not online. Google Desktop also includes an enhanced, customizable Sidebar that includes modules for weather, stock tickers and news.

Google Pack. Google Pack is a free collection of safe, useful software programs from Google and other companies that improve the user experience online and on the desktop. It includes programs that help users browse the web faster, remove spyware and viruses and organize their photos.

Google Toolbar. Google Toolbar is a free download that adds a Google search box to web browsers (Internet Explorer and Firefox) and improves people's web experience through features such as a pop-up blocker that blocks pop-up advertising, an autofill feature that completes web forms with information saved on a user's computer and customizable buttons that let users search their favorite web sites and stay updated on their favorite feeds.

Picasa. Picasa is a free service that allows users to view, manage and share their photos. Picasa enables users to import, organize and edit their photos, and upload them to Picasa Web Albums where the photos can be shared with others on the internet.

Google GEO—Maps, Earth and Local

Google Earth. Google Earth lets users see and explore the world and beyond from their desktop. Users can fly virtually to a specific location and learn about that area through detailed satellite and aerial images, 3D topography, street maps and millions of data points describing the location of businesses, schools, parks and other points of interest around the globe. Google Earth includes Sky, an astronomical imagery library with images of over 100 million stars and 200 million galaxies.

Google Maps. Google Maps helps people navigate map information. Users can look up addresses, search for businesses, and get point-to-point driving directions—all plotted on an interactive street map or on satellite imagery. Google Maps includes 360-degree street-level imagery in several cities. Google Maps provides a comprehensive search experience by combining yellow-pages listings with ratings and reviews and other business information. We display relevant targeted ads for searches done through Google Maps.

Google Sketchup and Sketchup Pro. Google Sketchup is a free tool that enables users to model buildings in 3D, and can be used as a tool for populating Google Earth with architectural content. The Pro version of this tool is sold to professional designers and includes additional features.

Google Checkout

Google Checkout is a service for our users, advertisers and participating merchants that is intended to make online shopping faster, more convenient and more secure by providing a single login for buying online and helping users find convenient and secure places to shop when they search. Google Checkout improves the user search experience by:

- placing a small shopping cart icon on the AdWords advertisements of stores who accept Google Checkout so that users can easily identify and visit participating merchants.
- saving users time by letting them buy with a single login for use across the web and track shipping and purchase histories in one place.
- improving security by not revealing the user's full credit card number to the seller, reimbursing a user for unauthorized purchases and helping the user control commercial spam from online shopping.

For merchants, Google Checkout is integrated with AdWords to help advertisers attract more leads, convert more leads to sales and process sales. We believe that Google Checkout's streamlined checkout process lowers shopping cart

abandonment and barriers to purchase, which increases conversion of clicks to sales for participating merchants. On February 1, 2008, we began charging merchants who use Google Checkout 2% of the transaction amount plus \$0.20 per transaction to the extent these fees exceed 10 times the amount they spend on AdWords advertising.

Google Mobile

Google Mobile. Google Mobile lets people search and view both the “mobile web,” consisting of pages created specifically for wireless devices, and the entire Google index. Users can also access online information using Google SMS by typing a query to the Google shortcode and checking their email using Gmail Mobile. Google Mobile is available through many wireless and mobile phone services worldwide.

Google Maps for Mobile. Google Maps for Mobile is a free downloadable Java client application that lets users view maps and satellite imagery, find local businesses and get driving directions on mobile devices. Maps for Mobile offers many of the same functions as Google Maps, including draggable maps combined with satellite imagery. In addition, the My Location feature allows users to view their approximate location on the map.

Blogger for Mobile. With Blogger for mobile devices, users can take pictures with their camera phones and then post their pictures and text comments to their blog using MMS or email.

Google Gmail, News and Personalized Home for Mobile. Several of our services, such as Gmail, News and Personalized Home are also available as mobile applications.

GOOG-411. GOOG-411 is a free speech-enabled application allowing users to call 1-800-GOOG-411 to search for businesses by name or category.

Android. Android is an open-source and free mobile software platform which allows developers to create applications for mobile devices. Android is being developed with the Open Handset Alliance, a group of more than 30 technology and mobile companies, with the goal of providing consumers a less expensive and richer mobile experience.

Google Labs

Google Labs is our testbed for our engineers and adventurous Google users. On Google Labs, we post product prototypes and solicit feedback on how the technology could be used or improved. Current Google Labs examples include: *Google Code Search*, an interface that lets developers search publicly available open-source code, and *Google Web Accelerator*, a downloadable client application that uses Google's global computer network to enhance user web experience by enabling faster loading of web pages.

The Technology Behind Search and Our User Products and Services

Our web search technology uses a combination of techniques to determine the importance of a web page independent of a particular search query and to determine the relevance of that page to a particular search query.

Ranking Technology. One element of our technology for ranking web pages is called PageRank. While we developed much of our ranking technology after Google was formed, PageRank was developed at Stanford University with the involvement of our founders and was therefore published as research. PageRank is a query-independent technique for determining the importance of web pages by looking at the link structure of the web. PageRank treats a link from web page A to web page B as a “vote” by page A in favor of page B. The PageRank of a page is the sum of the pages that link to it. The PageRank of a web page also depends on the importance (or PageRank) of the other web pages casting the votes. Votes cast by important web pages with high PageRank weigh more heavily and are more influential in deciding the PageRank of pages on the web.

Text-Matching Techniques. Our technology employs text-matching techniques that compare search queries with the content of web pages to help determine relevance. Our text-based scoring techniques do far more than count the number

of times a search term appears on a web page. For example, our technology determines the proximity of individual search terms to each other on a given web page, and prioritizes results that have the search terms near each other. Many other aspects of a page's content are factored into the equation, as is the content of pages that link to the page in question. By combining query independent measures such as PageRank with our text-matching techniques, we are able to deliver search results that are relevant to what people are trying to find.

In addition, we provide our products and services using our homegrown software and hardware infrastructure, which provides substantial computing resources at low cost. We currently use a combination of off-the-shelf and custom software running on clusters of commodity computers. Our considerable investment in developing this infrastructure has produced several benefits. This infrastructure simplifies the storage and processing of large amounts of data, eases the deployment and operation of large-scale global products and services, and automates much of the administration of large-scale clusters of computers. Although most of this infrastructure is not directly visible to our users, we believe it is important for providing a high-quality user experience. It enables significant improvements in the relevance of our search and advertising results by allowing us to apply superior search and retrieval algorithms that are computationally intensive. We believe the infrastructure also shortens our product development cycle and lets us pursue innovation more cost effectively.

How We Provide Value to Our Advertisers and Content Owners

Google AdWords

For advertisers seeking to market their products and services to consumers and business users over the internet, we offer Google AdWords, an auction-based advertising program that lets advertisers cost effectively deliver relevant ads targeted to search queries or web content across Google sites and through the Google Network, which is how we refer to the network of third parties that use our advertising programs to deliver relevant ads on their web sites. The Google Network is also increasingly encompassing different forms of online and offline media as well, including content providers who use our advertising programs to deliver ads in print, online video and television and radio broadcasts. AdWords is accessible to advertisers in 41 different interface languages.

Advertisers in our AdWords program create text-based or display ads, bid on the keywords that will trigger the display of their ads and set daily spending budgets. AdWords features an automated, low-cost online signup process that lets advertisers implement ad campaigns that can very quickly go live on Google properties and the Google Network. Ads are ranked for display in AdWords based on a combination of the maximum cost per click (CPC) set by the advertiser and click-through rates and other factors used to determine the relevance of the ads. This favors the ads that are most relevant to users, improving the experience both for the person looking for information and for the advertiser who is generating relevant ads. The AdWords program offers advertisers the following additional benefits:

Return on Investment. Many advertising dollars are spent delivering messages in an untargeted fashion, and payment for these advertisements is not tied to performance. AdWords shows ads only to people seeking information related to what the advertisers are selling, and advertisers choose how much they pay when a user clicks on their ad. Because we offer a simple ad format, advertisers can also avoid incurring significant costs associated with creating ads. As a result, even small advertisers find AdWords cost-effective for connecting with potential customers. In addition, advertisers can create many different ads, increasing the likelihood that an ad is suited to a user's search. Users can find advertisements for what they are seeking, and advertisers can find users who want what they are offering.

Branding. We also offer Site Targeting, a service that lets advertisers target specific web sites with text, image and Flash ads, so that they can more effectively reach specific sets of customers. In addition to targeting sites by content, advertisers can choose placements on sites based on user demographic attributes. To protect user privacy, we use only third-party opt-in panel data to map the demographics of sites in our networks. Site Targeting is an auction-based system where bidding is based on a maximum cost per impression, and Site-Targeted ads compete with keyword-targeted ads in the same auction.

Access to the Google Search and Content Network. We serve AdWords ads on Google properties, our syndicated search partners' web sites, and the thousands of third-party web sites that make up the Google Network. As a result, we can offer extensive search and content inventory on which advertisers can advertise. Apart from keyword-based Search

Targeting and Site Targeting, we also offer advertisers an effective contextual advertising option—Content Targeting—that displays their ads on relevant content pages across our network of partner sites and products. As a result, AdWords advertisers can target users on Google properties and on search and content sites across the web. This gives advertisers increased exposure to people who are likely to be interested in their offerings. The Google Network significantly enhances our ability to attract interested advertisers.

Broader Range of Media. Our experiments with targeted ads in new media also open up new inventory options to AdWords advertisers. With the acquisition of dMarc Broadcasting in February 2006 and YouTube in October 2006, we have broadened the distribution options for our advertisers. In addition, we have been testing ad placements in mobile search. We are also currently placing ads in over 650 newspapers in the U.S. and, among other things, experimenting with ways of further streamlining the process of placing print ads.

Campaign Control. Google AdWords gives advertisers hands-on control over most elements of their ad campaigns. Advertisers can specify the relevant search or content topics for each of their ads. Advertisers can also manage expenditures by setting a maximum daily budget and determining how much they are willing to pay whenever a user clicks or views an ad. Other features that make it easy to set up and manage ad campaigns include:

- *Campaign management.* Advertisers can target multiple ads to a given keyword and easily track individual ad performance to see which ads are the most effective.
- *Conversion tracking.* Conversion tracking is a free tool integrated into AdWords reports that measures the conversions of an advertiser's campaigns, enabling a better understanding of the overall return on investment generated for the advertiser by the AdWords program.
- *Traffic estimator.* This tool estimates the number of searches and potential costs related to advertising on a particular keyword or set of keywords.
- *Quality-based bidding.* Advertisers' keywords are assigned dynamic minimum bids based on their Quality Score—the higher the Quality Score, the lower the minimum bid. This rewards advertisers with relevant keywords and ads.
- *Budgeted delivery.* Advertisers can set daily budgets for their campaigns and control the timing for delivery of their ads.
- *AdWords Discounter.* This feature gives advertisers the freedom to increase their maximum CPCs because it automatically adjusts pricing so that they never pay more than one cent over the next highest bid.

We offer larger advertisers additional services that help maximize returns on their internet marketing investments and improve their ability to run large, dynamic campaigns. These include dedicated client service representatives as well as:

- *Creative maximization.* Our AdWords specialists help advertisers select relevant keywords and create more effective ads.
- *Vertical market experts.* Specialists with experience in particular industries offer guidance on how to target potential customers.
- *Bulk posting.* We help businesses launch and manage large ad campaigns with hundreds or even thousands of targeted keywords.
- *The AdWords API and Commercial Developer Program.* For large advertisers as well as third parties, Google's free AdWords API service lets developers engineer computer programs that interact directly with the AdWords system. With such applications, advertisers and third parties can more efficiently and creatively manage their large AdWords accounts and campaigns. The AdWords Commercial Developer Program also enables our third-party developer ecosystem to continue designing and delivering innovative business applications based on the AdWords platform and distribution channel.

Global Support. We provide customer service to our advertiser base through our global support organization as well as through over 60 offices in over 20 countries. AdWords is available on a self-service basis with email and real-time chat

support. At certain spending levels and through certain signup channels, phone support is also available. Advertisers with more extensive needs and advertising budgets can request strategic support services, which include an account team, to help them set up and manage their campaigns. Depending on geography, we accept bank and wire transfers, direct debit, and local debit cards carrying the Visa and MasterCard logos. We also accept payment through international credit cards. For selected advertisers, we offer several options for credit terms and monthly invoicing. We accept payments in over 40 currencies.

Google AdSense

We are enthusiastic about helping content owners monetize their content, which facilitates the creation of better content to search. If there is better content on the web, people are likely to do more searches, and we expect that will be good for our business and for users. Our Google AdSense program enables web sites that are part of the Google Network to deliver AdWords ads that are relevant to the search results or content on their pages. It also allows offline media companies, such as newspaper and radio stations, to deliver print ads and audio ads to the content they provide. We share most of the revenue generated from ads shown by a member of the Google Network with that member. The key benefits we offer to content owners in the Google Network include:

- *Access to Advertisers.* Many small web site companies and content producers do not have the time or resources to develop effective programs for generating revenue from online advertising. Even larger sites, with dedicated sales teams, may find it difficult to generate revenue from pages with specialized content. Google AdSense promotes effective revenue generation by providing Google Network members access to Google's base of advertisers and their broad collection of ads. Our technology automatically starts delivering ads on a web site as soon as the site joins the Google Network. Because the ads are related to what the web site's visitors are looking for on the site, AdSense provides web sites with a way to both monetize and enhance their sites. The Google Network member determines the placement of the ads on its web site, and controls and directs the nature of ad content.
- *Improved User Satisfaction.* Many web sites are cluttered with intrusive or untargeted advertising that may distract or confuse users and may undermine users' ability to find the information they want. Some web sites have adopted practices we consider to be abusive, including pop-up ads or ads that take over web pages. We believe these tactics can cause dissatisfaction with internet advertising and reduce use of the internet overall. Our AdSense program extends our commitment to improving the overall web experience by enabling web sites to display AdWords ads in a fashion that we believe people find useful rather than disruptive.
- *Better Storage, Management, Access and Visibility.* We have developed new storage, management and access technologies to allow content owners and producers to distribute and, if they wish, monetize more types of online and offline content. We believe that only a small fraction of the world's information and content is easily and effectively stored and searchable, and that bringing non-traditional, online or offline content into Google's index will encourage the preservation and continued creation of this content. Google Scholar, Google Book Search, and Google Video enable more print and video content to be made easily accessible (and monetizable) online, while Google Base allows owners and creators to put online even non-traditional forms of structured information.
- *Syndicated Search.* We provide our search technology to partners of all sizes, allowing Google search service to be offered through these partners' properties. For commercial partners, we provide an extensive range of customization options. We also provide free standard Web Search and Site Search to other partners through Google Free.

Our Google AdSense program includes:

Google AdSense for Search. For internet companies that want to target search audiences, we offer Google AdSense for search. To use AdSense for search, most of our AdSense for search partners add Google search functionality to their web pages in the form of customizable Google search boxes. We offer this service free to these partners. When visitors to these web sites search either the web site or the internet using these customizable search boxes, we display relevant ads (generally text ads) on the search results pages, targeted to match user search queries. These web sites can then generate

additional revenue when visitors click on or view these ads. Because we also offer to license our web search technology along with Google AdSense for search, companies without their own search service can offer Google Web Search to improve the usefulness of their web sites for their users while increasing their revenue. We generally charge a fee related to these license agreements. We also offer a more customizable premium offering to web sites with significant traffic.

Google AdSense for Content. Google AdSense for content lets web sites generate revenue from advertising by serving relevant AdWords ads targeted to web content. Web sites can use our automated sign-up process to quickly display AdWords ads on their sites. Under this program, we use automated technology to analyze the meaning of the content on the web site and serve relevant ads based on the meaning of such content. For example, a web page on an automotive blog that contains an entry about vintage cars might display ads for vintage car parts or vintage car shows. These ads are displayed in spaces that our AdSense for content partners have set aside on their web sites for our AdWords content. AdSense for content allows a variety of ad types to be shown, including text ads, image ads, video ads, link units (which are sets of clickable links to topic pages related to page content) and themed units (which are regular text ad units with graphic treatments that change seasonally and by geography). We share the majority of the revenues generated from these ads with the Google Network members that display the ads. Important AdSense for content features include:

- *Competitive ad filters.* Web sites can block competitive ads, or other ads they want to keep off their site, simply by telling us which URLs to block.
- *Reports.* Publishers can view customizable reports about their AdSense performance.
- *Sensitive content filters.* At times, certain ads may be inappropriate for some pages. For example, Google automatically filters out ads that would be inappropriate on a news page about a catastrophic event.
- *Choose default ads.* In the unlikely event that Google is unable to serve targeted ads on a page, we offer web sites the option of displaying a default ad of their choice.

Google AdSense for Domains and Feeds. Google AdSense for domains allows owners of undeveloped domains that receive traffic from users typing generic terms into browsers or search to generate revenue from relevant advertising. AdSense for feeds is a free program that allows publishers to monetize their feeds—user-subscribable content streams containing structured data such as stock and financial information, web log posts, and weather reports—through text ads targeted to the content of the feed. Like AdSense for search or content, Google shares the majority of the advertising revenue from AdSense for domains and AdSense for feeds with the domain owner or feed publisher.

Google AdSense for Audio and Audio Ads. Google AdSense for Audio is an early-stage product for radio broadcasters that automatically schedules and places advertising into radio programs, with the objective of increasing revenue for broadcasters by making their ad inventory available to new advertisers and decreasing the costs associated with processing advertisements. Google Audio Ads makes radio advertising easier for small and large businesses by providing an online interface for creating and launching radio advertising campaigns.

Google AdSense for Newspapers and Print Ads. Google AdSense for Newspapers is an early-stage product that lets newspaper publishers identify and manage available ad inventory and access bids submitted by advertisers who use Google Print Ads to create and launch their print campaigns. Google Print Ads makes it easier for advertisers to place advertisements in newspapers by simplifying the evaluation and selection of newspapers for print advertising campaigns, letting advertisers set their own prices and providing an online interface to create and upload ads and view electronic versions of published ads.

Google TV Ads. Google TV Ads is an early-stage product that allows advertisers to use their AdWords account to create TV campaigns. Advertisers can use our online advertising platform to place and monitor the effectiveness of their TV ads, enhancing relevance and accountability as compared to traditional TV advertising.

The Technology Behind Google's Advertising Programs

Our AdWords and AdSense programs serve millions of relevant, targeted ads each day based on search terms people enter or content they view on the web. The key elements of our advertising technology include:

Google AdWords Auction System. The Google AdWords auction system lets advertisers automatically deliver relevant, targeted advertising. Every search query we process involves the automated execution of an auction, resulting in our advertising system often processing hundreds of millions of auctions per day. To determine whether an ad is relevant to a particular query, this system weighs an advertiser's willingness to pay for prominence in the ad listings (the cost-per-click or cost-per-impression bid) and interest from users in the ad as measured by the click-through rate and other factors. Our Quality-based Bidding system also assigns minimum bids to advertiser keywords based on the Quality Scores of those keywords—the higher the Quality Score, the lower the minimum bid. The Quality Score is determined by an advertiser's keyword click-through rate, the relevance of the ad text, historical keyword performance, the quality of the ad's landing page and other relevancy factors. This prevents advertisers with irrelevant ads from “squatting” in top positions to gain exposure, and rewards more relevant, well-targeted ads that are clicked on frequently. Because we are paid only when users click on ads, the AdWords ranking system aligns our interests with those of our advertisers and our users. The more relevant and useful the ad, the better for our users, for our advertisers and for us.

The AdWords auction system also incorporates the AdWords Discounter, which automatically lowers the amount advertisers actually pay to the minimum needed to maintain their ad position. Consider a situation where there are three advertisers—Pat, Betty and Joe—each bidding on the same keyword for ads that will be displayed on Google.com. These advertisers have ads with equal click-through rates and bid \$1.00 per click, \$0.60 per click and \$0.50 per click, respectively. With our AdWords discounter, Pat would occupy the first ad position and pay only \$0.61 per click, Betty would occupy the second ad position and pay only \$0.51 per click, and Joe would occupy the third ad position and pay the minimum bid of \$0.01 per click. The AdWords discounter saves money for advertisers by minimizing the price they pay per click, while relieving them of the need to constantly monitor and adjust their CPCs. Advertisers can also experience greater discounts through the application of our smart pricing technology, which can reduce the price of clicks for ads served across the Google Network based on the expected value of the click to the advertiser.

AdSense Contextual Advertising Technology. Our AdSense technology employs techniques that consider factors such as keyword analysis, word frequency and the overall link structure of the web to analyze the content of individual web pages and to match ads to them almost instantaneously. With this ad targeting technology, we can automatically serve contextually relevant ads. To do this, Google Network members embed a small amount of custom HTML code on web pages that generates a request to Google's AdSense service whenever a user views the web page. Upon receiving a request, our software examines the content of web pages and performs a matching process that identifies advertisements that we believe are relevant to the content of the specific web page. The relevant ads are then returned to the web pages in response to the request. We employ similar techniques for matching advertisements to other forms of textual content, such as email messages and Google Groups postings. For example, our technology can serve ads offering tickets to fans of a specific sports team on a news story about that team.

Google Enterprise

We provide our search technology for use within enterprises through the Google Search Appliance and Google Mini. These search appliances are a software and hardware solution that companies can implement to extend Google's search performance to their internal or external information. They leverage our search technology to identify the most relevant pages on public web sites and across the corporate network, making it easy for people to find the information they need. We also provide hosted applications for businesses, schools, and nonprofit organizations through Google Apps.

Google Mini. The Google Mini is targeted at small-and medium-sized businesses who want to let employees and customers search designated documents, intranets and web sites.

Google Search Appliance. The Google Search Appliance is similar to the Google Mini except that it can handle more documents and offers more advanced features. Some advanced features of the Google Search Appliance include

integration with advanced corporate security protocols, integration with other enterprise applications, such as content management systems, portals and other systems, and real-time search of business applications. The Google Search Appliance is available in three models: the GB-1001, for mid-sized companies; the GB-5005, for dedicated, high-priority search services such as customer-facing web sites and company-wide intranet applications; and the GB-8008, for centralized deployments supporting global business units.

Google Apps. Google Apps provides hosted communication and collaboration tools for organizations such as small businesses, enterprises, schools, and groups. Google Apps includes communication features such as Gmail, Google Calendar, and Google Talk and collaboration features such as Google Docs. It is available on an organization's own domain. Google Apps is available in Standard and Premier Editions, with the Premier Edition providing security and compliance features allowing administrators to implement rules for how messages are handled, as well as search for and recover deleted mail across their domain.

For companies, universities and government agencies, Google also offers the Google Toolbar for Enterprise and Google Desktop for Enterprise. Google Toolbar gives employees a search box in the browser and the ability to create custom search buttons. Google Desktop for Enterprise indexes the contents of a user's hard drive for easy search and retrieval of documents, email, IM chats and other items. Google Earth's Enterprise offerings let business users view, modify and export their data in a geographic context. Google Earth Pro, a downloadable application with pricing starting at \$400 per user, lets users overlay company-specific data and information in Google Earth. Google Earth Enterprise lets users integrate and host proprietary geographic data or satellite imagery with Google Earth content.

Sales and Support

We have put significant effort into developing our sales and support infrastructure. We have over 60 offices in over 20 countries, the large majority of which include sales people. We deploy specialized sales teams across 11 vertical markets. We bring businesses into our advertising network through both online and direct sales channels. We work to use technology and automation wherever possible to improve the experience for our advertisers and to grow our business cost-effectively. The vast majority of our advertisers use our automated online AdWords program to establish accounts, create ads, target users and launch and manage their advertising campaigns. Our direct advertising sales team focuses on attracting and supporting companies around the world with the largest advertising budgets. Our AdSense program follows a similar model. Most of the web sites in the Google Network sign up for AdSense using an automated online process. Our direct sales force focuses on building AdSense relationships with leading internet companies. Our global support organization concentrates on helping our advertisers and Google Network members get the most out of their relationships with us.

Marketing

We have always believed that building a trusted, highly-recognized brand begins with providing high-quality products and services that make a notable difference in people's lives. Our user base has grown primarily by word-of-mouth. Our early marketing efforts focused on feeding this word-of-mouth momentum and used public relations efforts to accelerate it. Through these efforts and people's increased usage of Google worldwide, we have been able to build our brand with relatively low marketing costs as a percentage of our revenues. Today, we use the quality of our own products and services as our most effective marketing tool, and word-of-mouth momentum continues to drive consumer awareness and user loyalty worldwide. We also engage in targeted marketing efforts, such as those we deliver to our advertising clients, designed to inform potential advertisers, Google Network members and enterprises of the benefits they can achieve through Google—as well as targeted consumer marketing in certain geographies. In addition, we sponsor industry conferences and have promoted the distribution of Google products to internet users in order to make our search services easier to access.

Competition

We operate in a market that is characterized by rapid change and converging, as well as new and disruptive, technologies and we face formidable competition in every aspect of our business, particularly from companies that seek to

connect people with information on the web and provide them with relevant advertising. Currently, we consider our primary competitors to be Microsoft and Yahoo.

We also face competition from other web search providers, including start-ups as well as developed companies that are enhancing or developing search technologies. We compete with internet advertising companies, particularly in the areas of pay-for-performance and keyword-targeted internet advertising. We may compete with companies that sell products and services online because these companies, like us, are trying to attract users to their web sites to search for information about products and services. In addition to internet companies, we face competition from companies that offer traditional media advertising opportunities. We also provide a number of online products and services, including Google Checkout, YouTube and our communications tools such as Google Docs, that compete directly with new and established companies that offer communication, information and entertainment services integrated into their products or media properties. We also compete with web sites that provide their own or user-generated content and seek to provide advertising to their users.

We compete to attract and retain relationships with users, advertisers and Google Network members and other content providers in different ways:

- *Users.* We compete to attract and retain users of our search and communication products and services. Most of the products and services we offer to users are free, so we do not compete on price. Instead, we compete in this area on the basis of the relevance and usefulness of our search results and the features, availability and ease of use of our products and services.
- *Advertisers.* We compete to attract and retain advertisers. We compete in this area principally on the basis of the return on investment realized by advertisers using our AdWords and AdSense programs. We also compete based on the quality of customer service, features and ease of use of our products and services.
- *Google Network members and other content providers.* We compete to attract and retain content providers (Google Network members, as well as other content providers for whom we distribute or license their content) primarily based on the size and quality of our advertiser base, our ability to help these partners generate revenues from advertising and the terms of the agreements.

Intellectual Property

We rely on a combination of patent, trademark, copyright and trade secret laws in the U.S. and other jurisdictions as well as confidentiality procedures and contractual provisions to protect our proprietary technology and our brand. We also enter into confidentiality and invention assignment agreements with our employees and consultants and confidentiality agreements with other third parties, and we rigorously control access to proprietary technology.

Google, AdSense, AdWords, Gmail, I'm Feeling Lucky, PageRank, Blogger, orkut, Picasa and Keyhole are registered trademarks in the U.S. Our unregistered trademarks include, Blog*Spot, Writely and YouTube.

The first version of the PageRank technology was created while Larry and Sergey attended Stanford University, which owns a patent to PageRank. The PageRank patent expires in 2017. We hold a perpetual license to this patent. In October 2003, we extended our exclusivity period to this patent through 2011, at which point our license will become non-exclusive.

Circumstances outside our control could pose a threat to our intellectual property rights. For example, effective intellectual property protection may not be available in every country in which our products and services are distributed. Also, the efforts we have taken to protect our proprietary rights may not be sufficient or effective. Any significant impairment of our intellectual property rights could harm our business or our ability to compete. Also, protecting our intellectual property rights is costly and time consuming. Any increase in the unauthorized use of our intellectual property could make it more expensive to do business and harm our operating results.

Companies in the internet, technology and media industries own large numbers of patents, copyrights and trademarks and frequently enter into litigation based on allegations of infringement or other violations of intellectual property rights. As we face increasing competition, the possibility of intellectual property claims against us grows. Our technologies may not be able to withstand any third-party claims or rights against their use.

Government Regulation

We are subject to a number of foreign and domestic laws and regulations that affect companies conducting business on the internet. In addition, laws and regulations relating to user privacy, freedom of expression, content, advertising, information security and intellectual property rights are being debated and considered for adoption by many countries throughout the world. We face risks from some of the proposed legislation that could be passed in the future.

In the U.S., laws relating to the liability of providers of online services for activities of their users and other third parties are currently being tested by a number of claims, which include actions for libel, slander, invasion of privacy and other tort claims, unlawful activity, copyright and trademark infringement and other theories based on the nature and content of the materials searched, the ads posted or the content generated by users. Certain foreign jurisdictions are also testing the liability of providers of online services for activities of their users and other third parties. Any court ruling that imposes liability on providers of online services for activities of their users and other third parties could harm our business.

A range of other laws and new interpretations of existing laws could have an impact on our business. For example, the Digital Millennium Copyright Act has provisions that limit, but do not necessarily eliminate, our liability for listing, linking or hosting third-party content that includes materials that infringe copyrights. The Child Online Protection Act and the Children's Online Privacy Protection Act restrict the distribution of materials considered harmful to children and impose additional restrictions on the ability of online services to collect information from children under 13. In the area of data protection, many states have passed laws requiring notification to users when there is a security breach for personal data, such as California's Information Practices Act. The costs of compliance with these laws may increase in the future as a result of changes in interpretation. Furthermore, any failure on our part to comply with these laws may subject us to significant liabilities.

Similarly, the application of existing laws prohibiting, regulating or requiring licenses for certain businesses of our advertisers, including, for example, online gambling, distribution of pharmaceuticals, adult content, financial services, alcohol or firearms, can be unclear. Application of these laws in an unanticipated manner could expose us to substantial liability and restrict our ability to deliver services to our users.

We also face risks due to government failure to preserve the internet's basic neutrality as to the services and sites that users can access through their broadband service providers. Such a failure to enforce network neutrality could limit the internet's pace of innovation and the ability of large competitors, small businesses and entrepreneurs to develop and deliver new products, features and services, which could harm our business.

We are also subject to federal, state and foreign laws regarding privacy and protection of user data. We post on our web site our privacy policies and practices concerning the use and disclosure of user data. Any failure by us to comply with our posted privacy policies or privacy-related laws and regulations could result in proceedings against us by governmental authorities or others, which could potentially harm our business. In addition, the interpretation of data protection laws, and their application to the internet, in Europe and other foreign jurisdictions is unclear and in a state of flux. There is a risk that these laws may be interpreted and applied in conflicting ways from country to country and in a manner that is not consistent with our current data protection practices. Complying with these varying international requirements could cause us to incur additional costs and change our business practices. Further, any failure by us to protect our users' privacy and data could result in a loss of user confidence in our services and ultimately in a loss of users, which could adversely affect our business.

In addition, because our services are accessible worldwide, certain foreign jurisdictions have claimed and others may claim that we are required to comply with their laws, even where we have no local entity, employees or infrastructure.

Culture and Employees

We take great pride in our company culture and embrace it as one of our fundamental strengths. Our culture encourages the iteration of ideas to address complex technical challenges. In addition, we embrace individual thinking and creativity. As an example, we encourage our engineers to devote as much as 20% of their time to work on independent projects. Many of our significant new products have come from these independent projects, including Google News, AdSense for content and orkut.

We began as a technology company and have evolved into a software, technology, internet, advertising and media company all rolled into one. We take technology innovation very seriously. We compete aggressively for talent, and our people drive our innovation, technology development and operations. We strive to hire the best computer scientists and engineers to help us solve very significant challenges across systems design, artificial intelligence, machine learning, data mining, networking, software engineering, testing, distributed systems, cluster design and other areas. We work hard to provide an environment where these talented people can have fulfilling jobs and produce technological innovations that have a positive effect on the world through daily use by millions of people.

We have assembled what we believe is a highly talented group of employees. Despite our rapid growth, we constantly seek to maintain a small-company feel that promotes interaction and the exchange of ideas among employees. We try to minimize corporate hierarchy to facilitate meaningful communication among employees at all levels and across departments, and we have developed software to help us in this effort. We believe that considering multiple viewpoints is critical to developing effective solutions, and we attempt to build consensus in making decisions. While teamwork is one of our core values, we also significantly reward individual accomplishments that contribute to our overall success. As we grow, we expect to continue to provide compensation structures that are more similar to those offered by start-ups than established companies. We will focus on very significant rewards for individuals and teams that build amazing things that provide significant value to us, our advertisers and our users.

At December 31, 2007, we had 16,805 employees, consisting of 5,788 in research and development, 6,647 in sales and marketing, 2,844 in general and administrative and 1,526 in operations. All of Google's employees are also equityholders, with significant collective employee ownership. As a result, many employees are highly motivated to make the company more successful.

Seasonality

Both seasonal fluctuations in internet usage and traditional retail seasonality have affected, and are likely to continue to affect, our business. Internet usage generally slows during the summer months, and commercial queries typically increase significantly in the fourth quarter of each year. These seasonal trends have caused and will likely continue to cause, fluctuations in our quarterly results, including fluctuations in sequential revenue growth rates.

Available Information

Our web site is located at www.google.com, and our investor relations web site is located at <http://investor.google.com>. The information on or accessible through our web sites is not part of this Annual Report on Form 10-K. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to such reports are available, free of charge, on our investor relations web site as soon as reasonably practicable after we electronically file or furnish such material with the SEC. Further, a copy of this Annual Report on Form 10-K is located at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Information on the operation of the Public Reference Room can be obtained by calling the SEC at 1-800-SEC-0330. The SEC maintains an internet site that contains reports, proxy and information statements and other information regarding our filings at www.sec.gov.

Executive Officers of The Registrant

The names of our executive officers and their ages, titles and biographies as of January 31, 2008 are set forth below:

Name	Age	Position
Eric Schmidt	52	Chairman of the Board of Directors, Chief Executive Officer and Director
Sergey Brin	34	President of Technology and Director
Larry Page	35	President of Products and Director
Omid Kordestani	44	Senior Vice President of Global Sales and Business Development
David C. Drummond	44	Senior Vice President of Corporate Development, Chief Legal Officer and Secretary
George Reyes	53	Senior Vice President and Chief Financial Officer
Jonathan J. Rosenberg	46	Senior Vice President of Product Management
Shona L. Brown	41	Senior Vice President of Business Operations
Alan Eustace	51	Senior Vice President of Engineering and Research

Our executive officers are appointed by, and serve at the discretion of, our board of directors. Each executive officer is a full-time employee. There is no family relationship between any of our executive officers or directors.

Eric Schmidt has served as our Chief Executive Officer since July 2001 and served as Chairman of our board of directors from March 2001 to April 2004 and again from April 2007 to the present. In April 2004, Eric was named Chairman of the Executive Committee of our board of directors. Prior to joining us, from April 1997 to November 2001, Eric served as Chairman of the board of Novell, a computer networking company, and, from April 1997 to July 2001, as the Chief Executive Officer of Novell. From 1983 until March 1997, Eric held various positions at Sun Microsystems, a supplier of network computing solutions, including Chief Technology Officer from February 1994 to March 1997 and President of Sun Technology Enterprises from February 1991 until February 1994. Eric is also a director of Apple Inc., an electronic device company. Eric has a Bachelor of Science degree in electrical engineering from Princeton University and a Masters degree and Ph.D. in computer science from the University of California at Berkeley.

Sergey Brin, one of our founders, has served as a member of our board of directors since our inception in September 1998 and as our President of Technology since July 2001. From September 1998 to July 2001, Sergey served as our President. Sergey holds a Masters degree in computer science from Stanford University and a Bachelor of Science degree with high honors in mathematics and computer science from the University of Maryland at College Park.

Larry Page, one of our founders, has served as a member of our board of directors since our inception in September 1998 and as our President of Products since July 2001. Larry served as our Chief Executive Officer from September 1998 to July 2001 and as our Chief Financial Officer from September 1998 to July 2002. Larry holds a Masters degree in computer science from Stanford University and a Bachelor of Science degree in engineering, with a concentration in computer engineering, from the University of Michigan.

Omid Kordestani has served as our Senior Vice President of Global Sales and Business Development, formerly known as Worldwide Sales and Field Operations, since May 1999. Prior to joining us, Omid served as Vice President of Business Development, from 1995 to 1999, at Netscape, an internet software and services company. Prior to Netscape, he held positions in business development, product management and marketing at The 3DO Company, a video game company, Go Corporation, a developer of software for mobile devices, and Hewlett-Packard, a provider of technology products, software and services. Omid holds a Masters of Business Administration degree from Stanford University and a Bachelor of Science degree in electrical engineering from San Jose State University.

David C. Drummond has served as our Senior Vice President of Corporate Development since January 2006 and as Chief Legal Officer since December 2006. Previously, he served as our Vice President of Corporate Development and General Counsel since February 2002. Prior to joining us, from July 1999 to February 2002, David served as Chief Financial Officer of SmartForce, an educational software applications company. Prior to that, David was a partner at the law firm of Wilson Sonsini Goodrich & Rosati. David holds a J.D. from Stanford University and a Bachelor of Arts degree in history from Santa Clara University.

George Reyes has served as our Senior Vice President and Chief Financial Officer since January 2006. Previously, he served as our Vice President and Chief Financial Officer since July 2002. Prior to joining us, George served as Interim Chief Financial Officer for ONI Systems, a provider of optical networking equipment, from February 2002 until June 2002. From April 1999 to September 2001, George served as Vice President and Treasurer of Sun Microsystems, a supplier of networking computing solutions, and as Vice President, Corporate Controller of Sun Microsystems from April 1994 to April 1999. George is also a director of BEA Systems, an application infrastructure software company, Symantec, an information security company, and Flextronics, an electronics design, fabrication, assembly, and test company. George holds a Masters of Business Administration degree from Santa Clara University and a Bachelor of Arts degree in accounting from the University of South Florida. On August 27, 2007, George informed Google of his intention to resign as Chief Financial Officer. The effective date of his retirement has not been determined.

Jonathan J. Rosenberg has served as our Senior Vice President of Product Management since January 2006. Previously, he served as our Vice President of Product Management since February 2002. Prior to joining us, from October 2001 to February 2002, Jonathan served as Vice President of Software for palmOne, a provider of handheld computer and communications solutions. From March 1996 to November 2000, Jonathan held various executive positions at Excite@Home, an internet media company, most recently as its Senior Vice President of Online Products and Services. Jonathan holds a Masters of Business Administration degree from the University of Chicago and a Bachelor of Arts degree with honors in economics from Claremont McKenna College.

Shona L. Brown has served as our Senior Vice President of Business Operations since January 2006. Previously, she served as our Vice President of Business Operations since September 2003. Prior to joining us, from October 1995 to August 2003, Shona was at McKinsey & Company, a management consulting firm, where she had been a partner in the Los Angeles office since December 2000. Shona holds a Ph.D. and Post-Doctorate in industrial engineering and engineering management from Stanford University, a Masters of Arts degree from Oxford University (as a Rhodes Scholar), and a Bachelor of Science degree in computer systems engineering from Carleton University.

Alan Eustace has served as our Senior Vice President of Engineering and Research since January 2006. Previously, he served as our Vice President of Engineering since July 2003. Prior to joining us, from May 2002 to June 2003, Alan was at Hewlett-Packard, a provider of technology products, software and services, where he most recently served as Director of the Western Research Laboratory. Prior to that, Alan worked at Compaq from June 1998 until its acquisition by Hewlett-Packard in May 2002. Prior to that, Alan held various positions at Digital Equipment Corporation until its acquisition by Compaq in June 1998. Alan holds a Bachelor of Science degree, a Masters of Science degree and a Ph.D. in computer science from the University of Central Florida.

ITEM 1A. RISK FACTORS

Risks Related to Our Business and Industry

We face significant competition from Microsoft and Yahoo.

We face formidable competition in every aspect of our business, and particularly from other companies that seek to connect people with information on the web and provide them with relevant advertising. Currently, we consider our primary competitors to be Microsoft Corporation and Yahoo! Inc. Microsoft has developed features that make web search a more integrated part of its Windows operating system and other desktop software products. We expect that Microsoft will increasingly use its financial and engineering resources to compete with us. Microsoft has more employees and cash resources than we do. Also, both Microsoft and Yahoo have longer operating histories and more established relationships with customers and end users. They can use their experience and resources against us in a variety of competitive ways, including by making acquisitions, investing more aggressively in research and development and competing more aggressively for advertisers and web sites. Microsoft and Yahoo also may have a greater ability to attract and retain users than we do because they operate internet portals with a broad range of content products and services. If Microsoft or Yahoo are successful in providing similar or better web search results or more relevant advertisements, or in leveraging their platforms or products to make their web search or advertising services easier to access, we could experience a significant decline in user traffic or the size of the Google Network. Any such decline could negatively affect our revenues.

We face competition from other internet companies, including web search providers, internet access providers, internet advertising companies and destination web sites.

In addition to Microsoft and Yahoo, we face competition from other web search providers, including start-ups as well as developed companies that are enhancing or developing search technologies. We compete with internet advertising companies, particularly in the areas of pay-for-performance and keyword-targeted internet advertising. Also, we may compete with companies that sell products and services online because these companies, like us, are trying to attract users to their web sites to search for information about products and services. We also provide a number of online products and services, including Google Checkout, YouTube and our communications tools such as Google Docs, that compete directly with new and established companies that offer communication, information and entertainment services integrated into their products or media properties.

We also compete with web sites that provide their own or user-generated content and provide advertising to their users. These destination web sites include those operated by internet access providers, such as cable and DSL service providers. Because our users need to access our services through internet access providers, they have direct relationships with these providers. If an access provider or a computer or computing device manufacturer offers online services that compete with ours, the user may find it more convenient to use the services of the access provider or manufacturer. In addition, the access provider or manufacturer may make it hard to access our services by not listing them in the access provider's or manufacturer's own menu of offerings, or may charge users to access our web sites or the web sites of our Google Network members. Also, because the access provider gathers information from the user in connection with the establishment of a billing relationship, the access provider may be more effective than we are in tailoring services and advertisements to the specific tastes of the user.

There has been a trend toward industry consolidation among our competitors, and so smaller competitors today may become larger competitors in the future. If our competitors are more successful than we are at generating traffic, our revenues may decline.

We face competition from traditional media companies, and we may not be included in the advertising budgets of large advertisers, which could harm our operating results.

In addition to internet companies, we face competition from companies that offer traditional media advertising opportunities. Most large advertisers have fixed advertising budgets, a small portion of which is allocated to internet advertising. We expect that large advertisers will continue to focus most of their advertising efforts on traditional media. If

we fail to convince these companies to spend a portion of their advertising budgets with us, or if our existing advertisers reduce the amount they spend on our programs, our operating results would be harmed.

We expect our revenue growth rate to decline and anticipate downward pressure on our operating margin in the future.

We expect that our revenue growth rate will decline over time and anticipate that there will be downward pressure on our operating margin. We believe our revenue growth rate will generally decline as a result of increasing competition and the inevitable decline in growth rates as our revenues increase to higher levels. We believe our operating margin will experience downward pressure as a result of increasing competition and increased expenditures for many aspects of our business. Our operating margin will also experience downward pressure if a greater percentage of our revenues comes from ads placed on our Google Network members' sites compared to revenues generated through ads placed on our own sites or if we spend a proportionately larger amount to promote the distribution of certain products, including Google Toolbar. The margin on revenue we generate from our Google Network members is significantly less than the margin on revenue we generate from advertising on our web sites. Additionally, the margin we earn on revenue generated from our Google Network members could decrease in the future if we pay an even larger percentage of advertising fees to our Google Network members.

Our operating results may fluctuate, which makes our results difficult to predict and could cause our results to fall short of expectations.

Our operating results may fluctuate as a result of a number of factors, many outside of our control. As a result, comparing our operating results on a period-to-period basis may not be meaningful, and you should not rely on our past results as an indication of our future performance. Our quarterly, year-to-date and annual expenses as a percentage of our revenues may differ significantly from our historical or projected rates. Our operating results in future quarters may fall below expectations. Any of these events could cause our stock price to fall. Each of the risk factors listed in this Item 1A and the following factors may affect our operating results:

- Our ability to continue to attract users to our web sites.
- Our ability to monetize (or generate revenue from) traffic on our web sites and our Google Network members' web sites.
- Our ability to attract advertisers to our AdWords program.
- Our ability to attract web sites to our AdSense program.
- The mix in our revenues between those generated on our web sites and those generated through our Google Network.
- The amount and timing of operating costs and capital expenditures related to the maintenance and expansion of our businesses, operations and infrastructure.
- Our focus on long-term goals over short-term results.
- The results of our investments in risky projects.
- Our ability to keep our web sites operational at a reasonable cost and without service interruptions.
- Our ability to achieve revenue goals for partners to whom we guarantee minimum payments or pay distribution fees.
- Our ability to generate revenue from services in which we have invested considerable time and resources, such as YouTube, Gmail, orkut and Google Checkout.

Because our business is changing and evolving, our historical operating results may not be useful to you in predicting our future operating results. In addition, advertising spending has historically been cyclical in nature, reflecting overall